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the Lineman



RURAL ELECTRIFICATION ADMINISTRATION - U.S. DEPARTMENT OF AGRICULTURE



He's a~sloggin' through the mud
When it's wet and dark at night.
On a case of outage trouble,
'Cause someone's lights won't light.

He's plowing through a snow~drift.
At an early morning hour.
So you can have your breakfast.
That's cooked with co-op power.

In wind and rain or cold or heat,
He takes 'em as they come.
With Nature often at her worst,
His tough job must be done.

So, Merry Christmas to you, men,
Wherever you may be.
Whether out a~hiking co-op poles
Or home with family.

Ralph A. C. Hill
Editor
Frank H. LaMaster
Associate Editor

UNITED STATES DEPARTMENT OF AGRICULTURE
RURAL ELECTRIFICATION ADMINISTRATION
Washington 25, D. C.

September 30, 1948

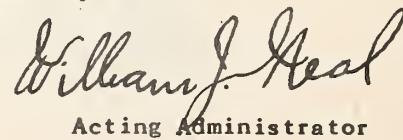
To: ALL REA BORROWERS

The prevention of accidents and the proper training of employees are important responsibilities of management. The cost of accidents has been of primary concern to our borrowers since the first rural lines were built. Expenditures made for accident prevention and employee training are operating costs, the same as bookkeeping, pay roll, and other legitimate business expenditures. Accident costs, unlike most business expenditures, are nonproductive. The dictates of good business practice require that these nonproductive costs be kept to an absolute minimum. Money spent nonproductively may jeopardize the Government's loan and in addition retard the electrification of rural areas yet unserved. This is particularly true as more thinly settled areas are entered. Accident costs, under certain conditions, also may place the financial condition of our borrowers in jeopardy. This is brought to our attention forcefully when state industrial commissions have handed down rulings in compensation cases, assessing the employer substantial amounts over and above the coverage provided by their insurance. Responsibility for the safety and job training of the worker rests squarely upon the shoulders of management.

As the rural systems grow and become more complex, accident costs are becoming a greater concern for those of us who are charged with the responsibility of seeing to it that the Federal loans are protected and repaid on time. It seems desirable, therefore, that we urge our borrowers to provide adequate safety and job training programs for their employees. The Rural Electrification Administration is prepared to assist its borrowers in safety and job training activities through the office of Labor Relations and Safety Specialist. You should feel free to call upon this office for any assistance which you may require.

The majority of the states are now conducting their own organized safety and job training programs with full time safety instructors on the job. Several other states have adopted a safety and job training program and are now in the process of perfecting these organizations. We believe this to be a sound business policy on the part of our borrowers.

It is evident that safety and training activities pay their way through increased efficiency of the worker and curtailing of nonproductive expenses. This activity also serves to build a good foundation for employer-employee relations by broadening the understanding between management and labor. Even without these monetary and other considerations, the prevention of accidents could be completely justified on the basis of elimination of suffering and distress which are the results of injury. There is no substitute for skilled workman doing a workmanlike job, with safety for themselves and the rural people whom they serve.


William J. Heal
Acting Administrator

Editor's Note - In response to requests from many readers, we reprint above a letter recently mailed to all borrowers.

Hooks Cut Out, Lineman

Grabs Energized Phase

Two linemen and a ground man had completed the hanging of a transformer on a dead end pole with secondary underbuild see (photograph A). The secondary condections were hooked up but the primary lead had not been attached to the phase.

The head lineman descended the pole. His assistant remained to staple the ground wire to the pole as he descended. He also planned to attach the transformer lead with a hot stick when he reached a position just below the neutral.

The assistant was belted off as indicated in photograph (B). In this position he was in reaching distance of the energized phase. He apparently decided to change his position and raised up to loosen his safety strap and relocate it. In doing so he lost his balance (one hook cut out) and tipped forward and to the left. His left hand and hip pressed against the neutral and his right hand struck the primary. Electrical burns were on both hands and his left hip. This fatal accident ends a two year no-lost-time accident record.

Discussion Points:

1. Would this lineman be alive today if the unexpected had not happened?
2. In planning a job is it important to figure what could happen and make plans to safe guard against the unexpected.
3. How many electrical shock accidents have previously been reported in The Lineman which resulted in death when some one slipped or lost his balance and touched or grabbed an energized conductor or lead?
4. If you were planning a similar job, could you prevent this type of accident?
5. If any part of the job to be done requires the lineman to take a work position within reaching distance of an energized conductor or part, should the conductor or part be de-energized during this part of the work?
6. Should a lineman wear rubber gloves while working on an 'energized' pole?
7. Would rubber gloves make this work position safe or would it be possible accidentally to contact the phase above the gloves?

dere EddiTer

I was tellin' Ben about your not answering my last letter. When I got through Ben says I better write it over again because maybe you didn't get it. That's why you havn't heard from me for so long. I wrote you for some important information one nite an' was gonna mail it on the way to work an' forgot to. We were in the truck goin' to the job an' one of the fellows says, " 'Hi Tension', (that's my new nickname. They're callin' me that now because I'm "hot stuff".) whatcha got in your pocket". One of 'em said, "You'll sure get 'em messed up carrying them around all day." Then another one said in a loud whisper, "Hope he leaves 'em in the truck so I can read 'em." They guyed me quite a bit and pretty soon we went through Jonesville and had to stop at a red light. Rusty, he's one of the gang says, "Look! Hot Stuff! Mail Box!" Sure enough over

(Continued on Page 4)



120-Volt Accident Results in Paralysis

A line foreman was checking a low voltage complaint on a member's transformer. He removed the lead, changed the taps on the transformer and re-connected it. His volt meter then registered the proper voltage and he prepared to descend the pole.

He placed the volt meter inside his shirt and attached his hot stick to his tool belt. As he came down past the secondary underbuild he lost his balance. To right himself he grabbed the 120 volt secondary with one hand the other was in contact with the ground wire on the pole. The shock which he received was so severe that he could not turn loose of the secondary - he had lost control of his muscles in his arms. (See electric shock facts in Nov., Dec., 1947 Jan., 1948 Lineman). In order to free himself he kicked his feet loose and fell to the ground. He struck the ground in a sitting position and remained there till two passers-by saw him and dragged him under the fence and out into the road. He was then placed in the truck in a sitting position in the front seat between the driver and a third man. The injured lineman instructed his rescuers how to use the truck radio and an ambulance was sent out to meet the truck.

There were no electrical burns or other serious injury from the shock. The X-ray showed a badly broken back with spinal cord damage as a result of the fall. This caused paralysis from the waist down.

Discussion Points

(See Nov., Dec., 1947 and Jan., 1948 Lineman Articles on Electric Shock)

1. Is it voltage or current (amps) which is the determining factor in electrical shock?
2. Is the current which will flow thru the human body determined by the voltage and the skin resistance of the victim?
3. Does sweat lower skin resistance and allow a larger current to flow?
4. Since 120 volts under favorable conditions will cause a dangerous electrical current to flow should precautions be taken when working around secondary conductors?
5. In your opinion did dragging the injured man under the fence and transporting him in a sitting position in the truck cause further injury to his spinal cord?
6. Red Cross first aid training teaches how to determine the extent of an injury and how to treat and handle the injured until

DERE EDDITER (Continued)

across the street was one of them new parcel post kind of mail boxes and Rusty says, "Hurry while we're waitin' on the green light." The truck driver says, "Make it snappy, I ain't gonna wait when she turns green." I just made it by a nat's eyebrow as they started to pull out just as I got back. As we rode along one of the fellas said, "Uncle Sam is paintin' them new mail boxes a different color. Them new ones is painted gray instead of green." An' another one says, "'Uncle' is sure gettin' civic spirited too. Didja notice the signs on that new Box? It says 'Help keep our city clean.'" And then they all snickered. Another said that these new gray ones are bigger than the old green ones - must be on account of they will hold more parcel post boxes and stuff an' then they all snickered again. But I didn't pay much attention because I got them letters mailed. After that I waited and waited for you to answer my questions. The other letter was to my new girl and she didn't answer either. So I finally talked to Ben about it. After I got finished he said I better get some paper an' write it over because he had a suspicion I had mailed them letters in one of the new trash boxes the city of Jonesville had put around the public square. Then he says it's about time we talked about "horse play" at the next safety meeting. I'll let you know about that next time.

Yours truly,
Hi Tension

Editor's Note: Did Ben think this an innocent little prank or did he feel that it was horse-play that might have resulted in an accident? How do you feel about it? See if your answer agrees with Ben's next month.

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NOTE: The editorial in the November issue, entitled 'The Job Ahead', was adapted from a talk by Ralph A. C. Hill, REA Labor Relations and Safety Specialist, at the 1948 Safety and Job Training Conference in Knoxville, Tenn., on October 4, 1948.

medical help can be obtained. Do well meaning 'passers-by' offering assistance often do more harm than good?

7. If an injured man had Red Cross First Aid training could he direct someone who did not have this training how to give him proper assistance?
8. Should not every cooperative employee have Red Cross First Aid training?